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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,777	05/01/2001	Robert F. Zepf	USFFIL.097A	4606

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EXAMINER

MENON, KRISHNAN S

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 07/03/2002

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/846,777

Applicant(s)

ZEPF, ROBERT F.

Examiner

Krishnan S Menon

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-68 is/are pending in the application.
- 4a) Of the above claim(s) 20-68 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) 20-68 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-19, drawn to product, classified in class 210, subclass 500.22.
- II. Claims 20-68, drawn to process, classified in class 264, subclass 45.5 and 212.

The inventions are distinct, each from the other because of the following reasons:

Inventions in group I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product claimed can be made by another materially different process like melt extrusion or stretching a film or by etching or a combination thereof, and the process claimed can be used to make other materially different products, like reverse osmosis membrane, solid films, etc.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Ms. Rose Theissen, attorney of record, on 6/24/02 and subsequently on 6/25/02, a provisional election was made with traverse to prosecute the invention of group I, claims 1-19. Affirmation of this election must be made by applicant in replying to this Office action. Claims 20-68 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites the limitation "polyolefin" in the first line. There is insufficient antecedent basis for this limitation in the claim. For examination purposes, the examiner will consider this claim as depending on claim 14 instead of claim 11.

Claims 17 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 17 and 18 recite the limitation "hydrophilic component" in the first line. There is insufficient antecedent basis for this limitation in the claim. For examination purposes, the examiner will consider this claim as depending on claim 16 instead of claim 13.

Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 recites the limitation "weight ratio" in the first line. There is insufficient antecedent basis for this limitation in the claim. For examination purposes, the examiner will consider this claim as depending on claim 18 instead of claim 15.

Claim Rejections - 35 USC § 102

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-19 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Wang et.

Al.(US 6,146,747).

Wang (747) discloses a polymer membrane comprising a surface with minimum pores and opposite surface with maximum pores, with a porous support in between the two surfaces. (col 6: 10-30). The surfaces have pores averaging 10 microns or more (Fig. 2C, 3C and table A). The pore sizes are of the order of 1 to 50 microns (Table A, and Fig. 2C and 3C). The membrane has a bubble point about 0.5 psi or more (col 6: 25-30) and water permeabilities in the range of 30,000 ml/min for a 90 mm dia disc at 10 psi pressure (col 7: 30-38). Membrane thickness is about 25 to 140 microns. Membranes can be made from polysulfones (col 2: 39-58; col 3: 59-60); PVdF (col 5(45-65); hydrophilic (col 6: 39-63); hydrophilic component PVP; with ratio of polymer to hydrophilic component at 12/30 to 20/1.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ditter et al (US 5,846,422) discloses a polysulfone membrane of identical characteristics as that of the instant application.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S Menon whose telephone number is 703-305-5999. The examiner can normally be reached on 8:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L Walker can be reached on 703-308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Krishnan S. Menon
Patent Examiner
June 27, 2002


W. L. WALKER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

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Inventor: Zepf

Application Number: 09/846,777

Date: 5/01/01

Cl. #	Dep. on	Limitation	Ditter 12/98 US 5,846,422	Wang 11/00 US 6146747	
1	--	polymer membrane mesh comprising:	Abs	Abs	
		1 st surface, 1 st surface pores	Col 3 15-60	6(10-30)	
		2 nd surface, 2 nd surface pores	Do	Do	
		Support structure between	Do	Do	
		Sp str. With reticulated channels	Do	Do	
		1 st /2 nd pores avg 10 μ or more	Do	Fig 2C, 3C, Table A	
2	1	20mic	Do, and fig 1A, 1B, table I	Do	
3	1	10-200 mic	Do	Do	
4	3	20-150 mic	Do	Do	
5	4	30-100 mic	Fig 1B, 2B, 3B, 4B, 5B.	Do	
6	1	Bubble pt less than 1 psi	4(66-67)	6(25-30)	
7	1	Water flow >30,000ml/min for 90 mm dia at 10 psi		7(30-38)	
8	1	Thk>50 mic	11(10-16)	6(10-30)	
9	1	Thk 50-500 mic	Do	Do	
10	9	75-200	Do	Do	
11	10	90-150	Do	Do	
12	1	Polymer = sulfone	Ex 1	3(59-60)	
13	12	{polyethersulfone, polyaryl., polysulfone, mix}	Do	Do	
14	1	Polymer {PVdF, acrylic copolymer, polyolefin, polyester, PTFE, polyurethane, polycarbonate, poly (TFE - co ethylene), polyamide, polystyrene, and mix}	--	5(45-65)	
15	11 (14)	Polyolefin {polyethylene, polypro}	--	14(23-36)	
16	1	Hydrophilic component	Annex I obvious	6(39-63)	
17	13 (16)	{pvp, pva, peg, mix}	Annex I obvious	Do	
18	13 (16)	Poly: hydro = 1/20 - 20/1		Do	
19	18	1/10-10/1		Do	